

MN 50

Deposited Table 7 Anisotropic displacement parameters for sartorite

| Atom | U_{11} | U_{22} | U_{33} | U_{23} | U_{13} | U_{12} |
|------|------------|------------|------------|-------------|-------------|-------------|
| Pb1 | 0.0477(5) | 0.0568(5) | 0.0562(6) | -0.0040(4) | 0.0081(4) | -0.0069(4) |
| Pb2 | 0.0549(5) | 0.0565(5) | 0.0731(7) | 0.0047(5) | 0.0243(5) | 0.0134(4) |
| Pb3 | 0.0440(5) | 0.0579(5) | 0.0511(6) | -0.0009(4) | 0.0068(4) | 0.0050(4) |
| Pb4 | 0.0473(5) | 0.0461(5) | 0.0815(7) | 0.0013(5) | 0.0233(5) | -0.0002(4) |
| Pb5 | 0.0390(4) | 0.0641(5) | 0.0571(6) | -0.0053(4) | 0.0107(4) | -0.0012(4) |
| Pb6 | 0.0395(4) | 0.0475(5) | 0.0587(6) | -0.0047(4) | 0.0083(4) | 0.0047(3) |
| Pb7 | 0.0420(5) | 0.0603(5) | 0.0830(8) | -0.0065(5) | 0.0158(5) | -0.0081(4) |
| Pb8 | 0.0446(5) | 0.0538(5) | 0.0684(7) | -0.0078(5) | 0.0139(4) | -0.0090(4) |
| Pb9 | 0.0515(5) | 0.0526(5) | 0.0606(6) | 0.0094(4) | 0.0224(4) | 0.0141(4) |
| As1 | 0.0350(10) | 0.0437(11) | 0.0434(13) | 0.0062(10) | 0.0064(9) | 0.0000(8) |
| As2 | 0.0373(10) | 0.0384(10) | 0.0403(13) | -0.0036(9) | 0.0101(9) | 0.0025(8) |
| As3 | 0.0441(11) | 0.0476(11) | 0.0403(13) | -0.0078(10) | 0.0095(9) | -0.0098(9) |
| As4 | 0.0367(10) | 0.0423(11) | 0.0422(13) | -0.0037(10) | 0.0009(9) | 0.0015(8) |
| As6 | 0.0537(13) | 0.0401(11) | 0.0448(13) | 0.0017(10) | 0.0158(10) | 0.0008(9) |
| As7 | 0.0391(11) | 0.0606(13) | 0.0448(14) | 0.0008(11) | 0.0090(10) | 0.0003(10) |
| As8 | 0.0377(10) | 0.0392(10) | 0.0487(13) | -0.0005(9) | 0.0074(9) | 0.0031(8) |
| As9a | 0.076(7) | 0.045(3) | 0.059(3) | -0.002(3) | 0.032(4) | 0.001(5) |
| As9b | 0.011(5) | 0.016(5) | 0.036(4) | -0.005(3) | -0.002(3) | -0.012(3) |
| As10 | 0.0381(11) | 0.0453(11) | 0.0423(13) | 0.0047(10) | 0.0070(9) | 0.0012(9) |
| As11 | 0.0374(10) | 0.0409(10) | 0.0347(12) | 0.0009(9) | 0.0068(9) | 0.0055(8) |
| As12 | 0.118(2) | 0.0452(13) | 0.0497(16) | -0.0138(12) | 0.0392(15) | -0.0336(13) |
| M13a | 0.042(3) | 0.027(3) | 0.045(3) | -0.005(2) | 0.012(2) | -0.007(2) |
| M13b | 0.046(2) | 0.037(2) | 0.078(3) | 0.015(2) | 0.028(2) | 0.0021(18) |
| As14 | 0.0308(10) | 0.0448(11) | 0.0404(13) | 0.0032(9) | 0.0044(9) | 0.0008(8) |
| As15 | 0.0349(10) | 0.0440(11) | 0.0488(14) | 0.0082(10) | -0.0008(9) | -0.0001(9) |
| As16 | 0.0631(13) | 0.0360(11) | 0.0404(13) | -0.0027(9) | -0.0029(10) | 0.0023(10) |
| As17 | 0.0559(13) | 0.0583(14) | 0.0452(14) | -0.0035(11) | 0.0028(11) | 0.0082(11) |
| As18 | 0.0326(10) | 0.0374(10) | 0.0388(12) | -0.0060(9) | 0.0045(9) | -0.0002(8) |
| S1 | 0.035(2) | 0.037(2) | 0.037(3) | -0.004(2) | 0.002(2) | -0.0041(19) |
| S2 | 0.059(3) | 0.037(3) | 0.055(4) | 0.003(2) | 0.003(3) | -0.005(2) |
| S3 | 0.034(2) | 0.049(3) | 0.040(3) | 0.007(2) | 0.007(2) | 0.000(2) |
| S4 | 0.035(2) | 0.033(2) | 0.042(3) | 0.001(2) | 0.009(2) | -0.0021(19) |
| S5 | 0.037(3) | 0.038(3) | 0.057(4) | -0.011(3) | 0.007(2) | -0.002(2) |
| S6 | 0.048(3) | 0.045(3) | 0.033(3) | 0.000(2) | 0.012(2) | -0.002(2) |
| S7 | 0.034(3) | 0.044(3) | 0.071(4) | 0.006(3) | 0.012(3) | -0.003(2) |
| S8 | 0.039(3) | 0.045(3) | 0.047(3) | -0.001(2) | 0.006(2) | 0.001(2) |
| S9 | 0.038(3) | 0.037(3) | 0.039(3) | -0.001(2) | 0.009(2) | 0.0022(19) |
| S10 | 0.055(3) | 0.036(3) | 0.056(4) | 0.001(2) | 0.017(3) | -0.002(2) |
| S11 | 0.074(4) | 0.048(3) | 0.063(4) | -0.011(3) | -0.004(3) | -0.006(3) |
| S12 | 0.043(3) | 0.028(2) | 0.050(3) | 0.003(2) | 0.009(2) | -0.003(2) |
| S13 | 0.037(3) | 0.040(3) | 0.059(4) | -0.008(3) | 0.006(2) | 0.004(2) |
| S14 | 0.042(3) | 0.048(3) | 0.040(3) | -0.002(2) | 0.009(2) | -0.007(2) |
| S15 | 0.055(3) | 0.042(3) | 0.065(4) | 0.008(3) | 0.026(3) | 0.009(2) |
| S16 | 0.049(3) | 0.053(3) | 0.050(4) | 0.000(3) | 0.013(3) | -0.012(2) |
| S17 | 0.047(3) | 0.042(3) | 0.059(4) | 0.003(3) | 0.022(3) | 0.006(2) |
| S18 | 0.043(3) | 0.048(3) | 0.041(3) | 0.002(2) | 0.006(2) | 0.001(2) |
| S19 | 0.038(3) | 0.039(3) | 0.046(3) | -0.001(2) | 0.009(2) | -0.004(2) |
| S20 | 0.039(3) | 0.043(3) | 0.050(3) | 0.001(2) | 0.006(2) | 0.004(2) |
| S21 | 0.037(3) | 0.041(3) | 0.044(3) | 0.001(2) | 0.004(2) | -0.005(2) |
| S22 | 0.043(3) | 0.037(2) | 0.052(3) | 0.003(2) | 0.011(2) | -0.002(2) |
| S23 | 0.039(3) | 0.041(3) | 0.048(3) | -0.004(2) | 0.010(2) | -0.001(2) |
| S24 | 0.032(2) | 0.038(3) | 0.052(3) | 0.002(2) | 0.011(2) | 0.0004(19) |
| S25 | 0.037(3) | 0.039(3) | 0.037(3) | -0.001(2) | 0.004(2) | -0.003(2) |
| S26 | 0.030(2) | 0.046(3) | 0.053(3) | 0.012(2) | 0.009(2) | 0.005(2) |
| S27 | 0.040(3) | 0.037(2) | 0.037(3) | -0.006(2) | 0.001(2) | 0.002(2) |
| S28 | 0.034(2) | 0.039(2) | 0.046(3) | -0.004(2) | 0.006(2) | -0.002(2) |
| S29 | 0.044(3) | 0.040(3) | 0.047(3) | 0.006(2) | 0.004(2) | 0.007(2) |
| S30 | 0.035(3) | 0.052(3) | 0.043(3) | 0.007(3) | 0.006(2) | 0.002(2) |
| S31 | 0.042(3) | 0.039(3) | 0.039(3) | 0.002(2) | 0.008(2) | 0.000(2) |
| S32 | 0.035(3) | 0.038(3) | 0.046(3) | -0.004(2) | 0.008(2) | 0.002(2) |
| S33 | 0.036(2) | 0.042(3) | 0.031(3) | 0.001(2) | 0.006(2) | -0.004(2) |
| S34 | 0.035(3) | 0.048(3) | 0.116(6) | 0.022(3) | 0.003(3) | 0.001(2) |
| S35 | 0.036(2) | 0.037(2) | 0.036(3) | 0.002(2) | 0.009(2) | 0.004(2) |

Deposited Table 8 Bond distances and angles (full Table)

| | | | | | | | | | |
|-----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Pb1 | S32 | S1 | S5 | S4 | S28 | S31 | S30 | S6 | S2 |
| S32 | 3.172(5) | 84.3(1) | 136.3(1) | 66.4(1) | 81.6(1) | 67.8(1) | 128.6(1) | 136.8(1) | 71.0(1) |
| S1 | 4.258(7) | 3.175(5) | 85.6(1) | 69.1(1) | 135.6(1) | 144.2(1) | 65.3(1) | 132.4(1) | 78.2(1) |
| S5 | 5.895(7) | 4.319(7) | 3.180(5) | 70.2(1) | 76.5(1) | 130.0(1) | 83.8(1) | 77.3(1) | 146.8(1) |
| S4 | 3.479(8) | 3.604(8) | 3.659(7) | 3.182(6) | 66.6(1) | 115.4(1) | 128.6(1) | 139.5(1) | 127.9(1) |
| S28 | 4.177(7) | 5.923(7) | 3.964(7) | 3.517(6) | 3.222(6) | 63.8(1) | 148.6(1) | 82.9(1) | 134.2(1) |
| S31 | 3.616(7) | 6.174(7) | 5.885(7) | 5.488(8) | 3.452(8) | 3.312(5) | 115.4(1) | 69.2(1) | 72.0(1) |
| S30 | 5.851(8) | 3.505(7) | 4.342(9) | 5.859(9) | 6.300(8) | 5.606(8) | 3.321(6) | 68.9(1) | 63.2(1) |
| S6 | 6.051(7) | 5.958(7) | 4.071(8) | 6.113(8) | 4.344(8) | 3.776(7) | 3.767(7) | 3.335(5) | 92.5(1) |
| S2 | 3.793(9) | 4.123(8) | 6.264(8) | 5.872(9) | 6.059(9) | 3.918(8) | 3.498(7) | 4.833(8) | 3.355(6) |
| Pb2 | S5 | S8 | S6 | S9 | S24 | S10 | S26 | S27 | S28 |
| S5 | 2.995(5) | 71.2(1) | 84.4(1) | 85.7(1) | 135.5(1) | 148.4(1) | 84.3(1) | 127.8(1) | 76.2(1) |
| S8 | 3.521(8) | 3.054(6) | 148.4(1) | 66.6(1) | 65.3(1) | 129.4(1) | 126.8(1) | 114.9(1) | 71.0(1) |
| S6 | 4.071(8) | 5.888(9) | 3.065(6) | 132.6(1) | 130.9(1) | 81.6(1) | 67.9(1) | 65.1(1) | 84.1(1) |
| S9 | 4.164(7) | 3.392(7) | 5.668(8) | 3.124(5) | 85.6(1) | 83.3(1) | 65.1(1) | 146.0(1) | 137.3(1) |
| S24 | 5.721(7) | 3.370(7) | 5.686(9) | 4.289(7) | 3.185(6) | 73.0(1) | 129.8(1) | 67.0(1) | 81.2(1) |
| S10 | 5.979(7) | 5.671(8) | 4.106(8) | 4.214(7) | 3.810(8) | 3.218(5) | 64.2(1) | 70.1(1) | 129.8(1) |
| S26 | 4.239(7) | 5.692(9) | 3.567(7) | 3.464(9) | 5.882(8) | 3.469(7) | 3.311(6) | 117.4(1) | 147.4(1) |
| S27 | 5.722(7) | 5.422(8) | 3.474(8) | 6.214(7) | 3.621(8) | 3.789(7) | 5.712(7) | 3.373(5) | 60.2(1) |
| S28 | 3.964(7) | 3.764(7) | 4.344(8) | 6.084(7) | 4.294(7) | 6.000(7) | 6.447(7) | 3.402(7) | 3.407(5) |
| Pb3 | S13 | S14 | S10 | S9 | S12 | S22 | S20 | S24 | S23 |
| S13 | 3.025(5) | 84.6(1) | 151.4(1) | 86.2(1) | 69.6(1) | 84.4(1) | 75.8(1) | 133.1(1) | 128.8(1) |
| S14 | 4.092(8) | 3.055(5) | 83.0(1) | 137.8(1) | 144.0(1) | 68.8(1) | 84.7(1) | 130.4(1) | 66.7(1) |
| S10 | 5.918(8) | 4.067(8) | 3.083(6) | 85.8(1) | 130.9(1) | 67.1(1) | 128.3(1) | 73.1(1) | 68.4(1) |
| S9 | 4.194(8) | 5.751(7) | 4.214(7) | 3.110(5) | 67.1(1) | 69.3(1) | 132.3(1) | 83.8(1) | 143.1(1) |
| S12 | 3.533(7) | 5.910(8) | 5.679(9) | 3.467(8) | 3.160(6) | 130.0(1) | 65.2(1) | 64.3(1) | 110.2(1) |
| S22 | 4.173(9) | 3.529(7) | 3.465(7) | 3.581(7) | 5.752(9) | 3.187(6) | 148.3(1) | 132.8(1) | 119.3(1) |
| S20 | 3.874(7) | 4.268(8) | 5.721(9) | 5.838(8) | 3.466(7) | 6.215(8) | 3.273(6) | 77.7(1) | 60.7(1) |
| S24 | 5.813(7) | 5.778(7) | 3.810(8) | 4.289(7) | 3.444(8) | 5.952(7) | 4.130(7) | 3.310(5) | 64.2(1) |
| S23 | 5.719(7) | 3.511(7) | 3.600(8) | 6.095(7) | 5.313(7) | 5.611(7) | 3.328(8) | 3.518(7) | 3.316(5) |
| Pb4 | S16 | S13 | S14 | S18 | S17 | S16 | S19 | S20 | |
| S16 | 3.083(6) | 82.6(1) | 139.8(1) | 68.6(1) | 87.7(1) | 80.2(2) | 144.2(1) | 128.1(1) | |
| S13 | 4.075(8) | 3.089(5) | 82.4(1) | 84.0(1) | 150.1(1) | 130.3(1) | 129.5(1) | 73.6(1) | |
| S14 | 5.828(9) | 4.092(8) | 3.123(6) | 72.9(1) | 87.0(1) | 136.0(1) | 69.3(1) | 82.1(1) | |
| S18 | 3.498(9) | 4.161(7) | 3.714(7) | 3.126(5) | 66.1(1) | 130.1(1) | 123.0(1) | 148.4(1) | |
| S17 | 4.351(8) | 6.070(7) | 4.349(8) | 3.446(7) | 3.194(5) | 75.1(1) | 70.8(1) | 132.5(1) | |
| S16 | 4.055(8) | 5.719(8) | 5.875(9) | 5.747(8) | 3.903(8) | 3.213(6) | 67.0(1) | 81.4(1) | |
| S19 | 6.047(8) | 5.753(7) | 3.636(8) | 5.622(7) | 3.748(7) | 3.577(9) | 3.271(5) | 62.1(1) | |
| S20 | 5.803(7) | 3.874(7) | 4.268(8) | 6.250(7) | 6.008(7) | 4.293(8) | 3.424(7) | 3.368(5) | |
| Pb5 | S20 | S16 | S15 | S19 | S17 | S21 | S16 | S13 | |
| S20 | 2.948(5) | 93.0(2) | 80.2(1) | 69.3(1) | 150.2(1) | 90.9(1) | 135.3(1) | 82.7(1) | |
| S16 | 4.293(8) | 2.969(6) | 81.0(2) | 72.6(1) | 91.8(2) | 153.5(2) | 79.5(2) | 134.2(1) | |
| S15 | 3.818(9) | 3.861(8) | 2.976(6) | 137.9(1) | 71.6(1) | 73.9(1) | 139.9(1) | 141.7(1) | |
| S19 | 3.424(7) | 3.577(9) | 5.644(9) | 3.072(6) | 139.7(1) | 132.8(1) | 66.4(1) | 63.2(1) | |
| S17 | 5.833(8) | 4.351(8) | 3.546(7) | 5.782(9) | 3.087(6) | 72.5(1) | 74.4(1) | 113.9(1) | |
| S21 | 4.328(8) | 5.930(7) | 3.667(7) | 5.677(8) | 3.673(7) | 3.123(5) | 115.0(1) | 72.3(1) | |
| S16 | 5.833(7) | 4.055(8) | 5.950(8) | 3.528(8) | 3.903(8) | 5.467(7) | 3.356(5) | 72.6(1) | |
| S13 | 4.296(7) | 5.983(8) | 6.141(8) | 3.475(7) | 5.546(9) | 3.936(9) | 4.075(8) | 3.523(6) | |
| Pb6 | S23 | S24 | S20 | S13 | S9 | S11 | S12 | S25 | S21 |
| S23 | 2.775(6) | 75.9(2) | 69.7(1) | 71.2(1) | 76.3(1) | 130.4(2) | 121.1(1) | 147.0(1) | 131.0(1) |
| S24 | 3.518(7) | 2.943(5) | 87.4(1) | 145.9(1) | 78.9(1) | 82.1(1) | 129.2(1) | 79.8(1) | 141.2(1) |
| S20 | 3.328(8) | 4.130(7) | 3.034(5) | 89.5(1) | 145.6(1) | 65.3(1) | 142.6(1) | 131.3(1) | 79.9(1) |
| S13 | 3.410(8) | 5.746(7) | 4.296(7) | 3.066(5) | 84.8(1) | 126.8(1) | 64.9(1) | 125.5(1) | 71.0(1) |
| S9 | 3.674(7) | 3.878(7) | 5.911(8) | 4.194(8) | 3.154(6) | 141.5(1) | 62.8(1) | 77.4(1) | 129.0(1) |
| S11 | 5.530(9) | 4.116(9) | 3.433(8) | 5.703(8) | 6.104(9) | 3.312(6) | 107.3(1) | 66.4(1) | 59.3(1) |
| S12 | 5.460(7) | 5.809(7) | 6.173(7) | 3.533(7) | 3.467(8) | 5.475(8) | 3.483(5) | 61.0(1) | 66.4(1) |
| S25 | 6.080(7) | 4.200(8) | 6.013(7) | 5.897(7) | 4.210(8) | 3.770(8) | 3.578(7) | 3.562(5) | 81.5(1) |
| S21 | 5.869(9) | 6.234(8) | 4.328(8) | 3.936(9) | 6.157(9) | 3.464(8) | 3.915(8) | 4.716(7) | 3.662(6) |

| | | | | | | | | | |
|-----|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Pb7 | S27 | S24 | S28 | S29 | S5 | S9 | S25 | S8 | S7 |
| S27 | 2.878(6) | 75.6(1) | 70.1(1) | 137.4(1) | 70.0(1) | 73.5(1) | 151.8(1) | 118.8(1) | 133.9(1) |
| S24 | 3.621(8) | 3.028(5) | 90.1(1) | 140.1(1) | 144.6(1) | 78.3(1) | 84.3(1) | 128.6(1) | 81.3(1) |
| S28 | 3.402(7) | 4.294(7) | 3.041(5) | 84.7(1) | 86.2(1) | 143.5(1) | 130.3(1) | 141.1(1) | 70.7(1) |
| S29 | 5.577(8) | 5.767(7) | 4.144(8) | 3.108(5) | 74.7(1) | 125.7(1) | 69.8(1) | 63.3(1) | 59.6(1) |
| S5 | 3.439(7) | 5.845(7) | 4.204(7) | 3.770(9) | 3.108(6) | 84.0(1) | 123.9(1) | 65.2(1) | 129.7(1) |
| S9 | 3.593(8) | 3.878(7) | 5.847(7) | 5.537(7) | 4.164(7) | 3.115(5) | 83.2(1) | 62.5(1) | 139.1(1) |
| S25 | 5.920(9) | 4.200(8) | 5.687(8) | 3.623(7) | 5.590(9) | 4.210(8) | 3.225(6) | 60.4(1) | 59.7(1) |
| S8 | 5.416(8) | 5.801(7) | 6.082(7) | 3.427(7) | 3.521(8) | 3.392(7) | 3.343(8) | 3.408(5) | 106.9(1) |
| S7 | 6.165(9) | 4.493(7) | 4.011(9) | 3.492(8) | 6.269(8) | 6.493(8) | 3.538(7) | 5.801(8) | 3.809(6) |
| Pb8 | S31 | S28 | S32 | S5 | S1 | S3 | S4 | S29 | S33 |
| S31 | 2.867(6) | 71.9(1) | 75.8(1) | 71.2(1) | 74.1(1) | 132.7(1) | 121.4(1) | 129.7(1) | 144.7(1) |
| S28 | 3.452(8) | 3.013(5) | 87.7(1) | 87.0(1) | 145.4(1) | 65.0(1) | 140.9(1) | 77.4(1) | 127.7(1) |
| S32 | 3.616(7) | 4.177(7) | 3.018(5) | 146.5(1) | 78.5(1) | 83.9(1) | 130.1(1) | 141.8(1) | 76.3(1) |
| S5 | 3.472(8) | 4.204(7) | 5.850(7) | 3.091(5) | 87.4(1) | 123.0(1) | 66.9(1) | 68.4(1) | 131.2(1) |
| S1 | 3.637(7) | 5.893(7) | 3.911(7) | 4.319(7) | 3.159(6) | 142.6(1) | 65.1(1) | 131.1(1) | 79.7(1) |
| S3 | 5.839(9) | 3.523(7) | 4.373(9) | 5.796(7) | 6.309(8) | 3.501(6) | 104.5(1) | 57.9(1) | 64.1(1) |
| S4 | 5.574(8) | 6.153(7) | 5.925(7) | 3.659(7) | 3.604(8) | 5.546(7) | 3.514(5) | 66.3(1) | 64.9(1) |
| S29 | 5.841(9) | 4.144(8) | 6.233(8) | 3.770(9) | 6.132(9) | 3.424(7) | 3.877(8) | 3.575(6) | 85.4(1) |
| S33 | 6.178(7) | 5.952(6) | 4.119(7) | 6.106(6) | 4.351(7) | 3.774(7) | 3.823(6) | 4.873(7) | 3.611(4) |
| Pb9 | S35 | S32 | S1 | S32 | S2 | S1 | S33 | S35 | S34 |
| S35 | 2.889(4) | 77.8(1) | 69.5(1) | 69.2(1) | 135.4(1) | 76.3(1) | 155.5(1) | 121.1(2) | 129.7(1) |
| S32 | 3.682(7) | 2.973(5) | 88.9(1) | 145.8(2) | 138.5(1) | 79.1(1) | 82.8(1) | 125.8(1) | 81.4(1) |
| S1 | 3.372(6) | 4.199(7) | 3.023(5) | 88.2(1) | 84.0(1) | 145.4(2) | 125.4(1) | 144.3(1) | 64.7(1) |
| S32 | 3.405(6) | 5.801(7) | 4.258(7) | 3.097(5) | 74.9(1) | 84.2(1) | 125.6(1) | 68.1(1) | 127.2(1) |
| S2 | 5.579(7) | 5.716(7) | 4.123(8) | 3.793(9) | 3.139(5) | 125.8(1) | 68.9(1) | 64.8(1) | 58.6(1) |
| S1 | 3.745(7) | 3.911(7) | 5.908(7) | 4.199(7) | 5.611(7) | 3.165(5) | 85.5(1) | 61.0(1) | 142.7(1) |
| S33 | 5.998(7) | 4.119(7) | 5.572(7) | 5.644(8) | 3.612(8) | 4.351(7) | 3.248(5) | 60.3(1) | 60.6(1) |
| S35 | 5.538(7) | 5.732(7) | 6.174(7) | 3.682(7) | 3.547(7) | 3.372(6) | 3.377(7) | 3.462(5) | 108.3(1) |
| S34 | 6.096(9) | 4.485(8) | 3.733(10) | 6.214(9) | 3.466(8) | 6.631(8) | 3.609(7) | 5.914(8) | 3.832(7) |
| As1 | S7 | S3 | S29 | S6 | S2 | S31 | S30 | | |
| S7 | 2.273(5) | 98.0(2) | 98.9(2) | 82.7(2) | 157.8(2) | 89.2(2) | 68.7(2) | | |
| S3 | 3.456(7) | 2.306(6) | 95.5(2) | 177.1(2) | 75.6(2) | 104.1(2) | 63.5(2) | | |
| S29 | 3.492(8) | 3.424(7) | 2.321(6) | 87.2(2) | 102.8(2) | 157.6(2) | 152.3(2) | | |
| S6 | 3.472(8) | 5.232(8) | 3.646(9) | 2.928(6) | 102.7(2) | 73.0(1) | 114.4(1) | | |
| S2 | 5.430(7) | 3.491(7) | 4.398(7) | 4.833(8) | 3.257(6) | 72.2(1) | 89.7(1) | | |
| S31 | 4.053(8) | 4.538(9) | 5.602(8) | 3.776(7) | 3.918(8) | 3.387(6) | 49.9(1) | | |
| S30 | 4.117(7) | 3.913(8) | 6.501(8) | 6.170(8) | 5.423(8) | 3.384(8) | 4.356(6) | | |
| As2 | S28 | S3 | S4 | S7 | S8 | S29 | S30 | | |
| S28 | 2.252(6) | 101.7(2) | 99.9(2) | 95.5(2) | 81.6(2) | 127.5(2) | 167.9(2) | | |
| S3 | 3.523(7) | 2.291(5) | 95.7(2) | 77.9(2) | 146.3(2) | 130.7(2) | 75.6(2) | | |
| S4 | 3.517(6) | 3.436(8) | 2.343(6) | 164.3(2) | 117.0(2) | 75.4(2) | 92.1(2) | | |
| S7 | 4.011(9) | 3.456(7) | 5.402(8) | 3.109(6) | 68.4(1) | 97.7(1) | 72.5(1) | | |
| S8 | 3.764(7) | 5.420(7) | 4.893(7) | 3.643(8) | 3.362(5) | 57.5(1) | 94.2(1) | | |
| S29 | 5.410(7) | 5.510(7) | 3.877(8) | 5.170(8) | 3.427(7) | 3.735(5) | 56.9(1) | | |
| S30 | 6.015(8) | 3.913(8) | 4.532(9) | 4.117(7) | 5.252(7) | 3.587(8) | 3.794(6) | | |
| As3 | S6 | S25 | S7 | S27 | S10 | S11 | S26 | | |
| S6 | 2.303(5) | 92.6(2) | 96.1(2) | 78.8(2) | 93.2(2) | 154.6(2) | 129.0(2) | | |
| S25 | 3.342(7) | 2.318(6) | 98.2(2) | 158.2(2) | 87.6(2) | 76.7(2) | 138.4(2) | | |
| S7 | 3.472(8) | 3.538(7) | 2.365(6) | 102.7(2) | 168.8(2) | 108.2(2) | 79.4(2) | | |
| S27 | 3.474(8) | 5.307(8) | 4.280(9) | 3.086(6) | 73.1(1) | 102.5(1) | 53.7(1) | | |
| S10 | 4.106(8) | 3.930(9) | 5.612(8) | 3.789(7) | 3.274(6) | 63.7(1) | 90.0(1) | | |
| S11 | 5.718(8) | 3.770(8) | 4.842(8) | 5.187(8) | 3.609(8) | 3.552(6) | 65.1(1) | | |
| S26 | 5.781(7) | 5.981(7) | 4.294(8) | 3.336(7) | 5.205(7) | 4.110(7) | 4.047(6) | | |
| As4 | S24 | S8 | S12 | S11 | S7 | S26 | S25 | | |
| S24 | 2.247(6) | 97.0(2) | 98.2(2) | 98.7(2) | 107.1(2) | 166.2(2) | 137.2(2) | | |
| S8 | 3.370(7) | 2.254(6) | 99.3(2) | 164.2(2) | 79.8(2) | 96.1(2) | 55.3(2) | | |
| S12 | 3.444(8) | 3.477(7) | 2.309(5) | 75.9(2) | 154.7(2) | 84.2(2) | 61.2(2) | | |
| S11 | 4.116(9) | 5.330(9) | 3.403(8) | 3.126(7) | 98.0(2) | 68.6(1) | 110.2(1) | | |
| S7 | 4.493(7) | 3.643(8) | 5.464(7) | 4.842(8) | 3.287(5) | 70.8(1) | 99.6(1) | | |
| S26 | 6.250(9) | 4.835(9) | 4.450(8) | 4.110(7) | 4.294(8) | 4.045(6) | 55.5(1) | | |
| S25 | 5.914(7) | 3.343(8) | 3.578(7) | 5.919(8) | 5.635(7) | 3.776(8) | 4.063(5) | | |
| M5a | S11 | S21 | S15 | S10 | S23 | S14 | S22 | | |
| S11 | 2.559(8) | 81.5(2) | 94.4(2) | 84.1(2) | 127.8(2) | 154.9(2) | 76.7(2) | | |
| S21 | 3.464(8) | 2.741(7) | 82.7(2) | 86.9(2) | 144.4(2) | 73.8(2) | 151.5(2) | | |

| | | | | | | | |
|------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| S15 | 3.943(9) | 3.667(7) | 2.808(6) | 169.6(2) | 110.5(2) | 87.1(2) | 80.8(2) |
| S10 | 3.609(8) | 3.824(7) | 5.606(7) | 2.821(6) | 78.1(2) | 89.8(2) | 108.8(2) |
| S23 | 4.896(9) | 5.362(8) | 4.682(8) | 3.600(8) | 2.890(7) | 74.1(2) | 63.9(2) |
| S14 | 5.365(9) | 3.412(9) | 3.960(8) | 4.067(8) | 3.511(7) | 2.937(7) | 128.1(2) |
| S22 | 3.859(8) | 6.087(7) | 4.151(7) | 5.184(7) | 3.443(8) | 5.827(7) | 3.536(6) |
| M5b | S21 | S11 | S15 | S10 | S14 | S23 | S22 |
| S21 | 2.371(7) | 90.3(3) | 90.7(2) | 94.0(2) | 80.5(2) | 147.3(3) | 155.1(2) |
| S11 | 3.464(8) | 2.514(9) | 96.4(2) | 84.5(2) | 169.3(3) | 117.0(2) | 71.1(2) |
| S15 | 3.667(7) | 3.943(9) | 2.769(7) | 175.3(3) | 89.1(2) | 102.8(2) | 75.6(2) |
| S10 | 3.824(7) | 3.609(8) | 5.606(7) | 2.842(7) | 90.7(2) | 72.7(2) | 100.4(2) |
| S14 | 3.412(9) | 5.365(9) | 3.960(8) | 4.067(8) | 2.875(8) | 70.2(2) | 119.3(2) |
| S23 | 5.362(8) | 4.896(9) | 4.682(8) | 3.600(8) | 3.511(7) | 3.211(8) | 57.5(1) |
| S22 | 6.087(7) | 3.859(8) | 4.151(7) | 5.184(7) | 5.827(7) | 3.443(8) | 3.854(7) |
| As6 | S20 | S11 | S12 | S15 | S22 | S21 | |
| S20 | 2.245(6) | 99.5(2) | 98.8(2) | 85.6(2) | 158.9(2) | 128.2(2) | |
| S11 | 3.433(8) | 2.253(6) | 96.2(2) | 89.2(2) | 77.7(2) | 132.3(2) | |
| S12 | 3.466(7) | 3.403(8) | 2.321(6) | 172.4(2) | 102.4(2) | 77.3(2) | |
| S15 | 3.818(9) | 3.943(9) | 5.575(8) | 3.266(7) | 73.5(1) | 95.1(1) | |
| S22 | 5.802(8) | 3.859(8) | 4.727(9) | 4.151(7) | 3.651(6) | 58.6(1) | |
| S21 | 5.391(7) | 5.481(8) | 3.915(8) | 5.154(7) | 3.598(7) | 3.706(6) | |
| As7 | S17 | S15 | S18 | S14 | S17 | S19 | S18 |
| S17 | 2.291(6) | 101.1(2) | 95.3(2) | 82.1(2) | 86.5(2) | 139.5(2) | 162.3(2) |
| S15 | 3.546(7) | 2.300(6) | 96.9(2) | 94.5(2) | 172.3(2) | 106.7(2) | 80.9(2) |
| S18 | 3.446(7) | 3.493(8) | 2.369(5) | 168.6(2) | 83.3(2) | 109.7(2) | 67.0(2) |
| S14 | 3.552(7) | 3.960(8) | 5.390(7) | 3.047(5) | 85.5(1) | 67.0(1) | 115.4(1) |
| S17 | 3.944(9) | 5.639(9) | 3.871(8) | 4.349(8) | 3.352(6) | 66.3(1) | 92.2(1) |
| S19 | 5.451(8) | 4.708(9) | 4.843(8) | 3.636(8) | 3.748(7) | 3.501(6) | 53.7(1) |
| S18 | 6.107(7) | 4.187(8) | 3.676(7) | 5.874(7) | 5.224(7) | 3.352(7) | 3.883(6) |
| As8 | S16 | S18 | S19 | S15 | S17 | S18 | |
| S16 | 2.254(6) | 100.9(2) | 100.8(2) | 91.6(2) | 137.5(2) | 158.7(2) | |
| S18 | 3.498(9) | 2.284(6) | 93.3(2) | 80.0(2) | 121.4(2) | 64.7(2) | |
| S19 | 3.528(8) | 3.352(7) | 2.326(5) | 166.8(2) | 73.8(2) | 95.9(2) | |
| S15 | 3.861(8) | 3.493(8) | 5.362(7) | 3.071(5) | 99.9(1) | 71.0(1) | |
| S17 | 5.532(8) | 5.224(7) | 3.748(7) | 5.167(7) | 3.658(5) | 60.4(1) | |
| S18 | 6.169(9) | 3.676(7) | 4.843(8) | 4.187(8) | 3.871(8) | 4.015(6) | |
| As9a | S14 | S21 | S22 | S17 | S18 | S15 | |
| S14 | 2.292(13) | 95.3(6) | 91.4(5) | 83.0(4) | 76.3(4) | 144.2(6) | |
| S21 | 3.412(9) | 2.323(16) | 93.0(5) | 86.1(5) | 157.6(6) | 120.1(5) | |
| S22 | 3.529(7) | 3.598(7) | 2.627(16) | 174.3(6) | 107.7(5) | 82.4(4) | |
| S17 | 3.552(7) | 3.673(7) | 5.626(7) | 3.006(16) | 72.3(3) | 103.0(4) | |
| S18 | 3.714(7) | 5.732(8) | 4.989(8) | 3.871(8) | 3.516(18) | 72.3(3) | |
| S15 | 5.604(7) | 5.154(7) | 4.151(7) | 5.167(7) | 4.187(8) | 3.582(13) | |
| As9b | S14 | S21 | S17 | S22 | S18 | S15 | |
| S14 | 2.183(11) | 96.7(5) | 102.1(5) | 78.4(4) | 81.2(4) | 133.9(5) | |
| S21 | 3.412(9) | 2.380(13) | 101.0(5) | 77.8(3) | 175.8(5) | 109.0(4) | |
| S17 | 3.552(7) | 3.673(7) | 2.381(12) | 178.8(5) | 83.0(4) | 109.4(4) | |
| S22 | 3.529(7) | 3.598(7) | 5.626(7) | 3.246(12) | 98.2(3) | 70.8(3) | |
| S18 | 3.714(7) | 5.732(8) | 3.871(8) | 4.989(8) | 3.356(13) | 70.5(2) | |
| S15 | 5.604(7) | 5.154(7) | 5.167(7) | 4.151(7) | 4.187(8) | 3.864(15) | |
| As10 | S13 | S23 | S19 | S22 | S18 | S15 | S14 |
| S13 | 2.234(6) | 99.3(2) | 99.0(2) | 99.7(2) | 99.0(2) | 161.7(2) | 140.4(2) |
| S23 | 3.410(8) | 2.241(5) | 100.1(2) | 77.0(2) | 161.2(2) | 92.9(2) | 57.2(2) |
| S19 | 3.475(7) | 3.508(7) | 2.335(6) | 161.3(2) | 73.1(2) | 92.2(2) | 60.3(2) |
| S22 | 4.173(9) | 3.443(8) | 5.431(8) | 3.168(6) | 103.7(1) | 69.7(1) | 104.2(1) |
| S18 | 4.161(7) | 5.348(7) | 3.352(7) | 4.989(8) | 3.177(5) | 70.3(1) | 105.2(1) |
| S15 | 6.160(8) | 4.682(8) | 4.708(9) | 4.151(7) | 4.187(8) | 4.000(6) | 57.9(1) |
| S14 | 6.067(7) | 3.511(7) | 3.636(8) | 5.827(7) | 5.874(7) | 3.960(8) | 4.176(6) |
| As11 | S10 | S26 | S22 | S21 | S25 | S12 | S11 |
| S10 | 2.251(6) | 99.1(2) | 98.9(2) | 91.1(2) | 89.8(2) | 146.9(2) | 161.3(2) |
| S26 | 3.469(7) | 2.308(5) | 93.7(2) | 169.7(2) | 84.3(2) | 98.4(2) | 72.3(2) |
| S22 | 3.465(7) | 3.367(7) | 2.309(6) | 83.2(2) | 171.3(2) | 107.7(2) | 65.9(2) |
| S21 | 3.824(7) | 5.334(6) | 3.598(7) | 3.047(5) | 97.4(1) | 73.4(1) | 97.5(1) |
| S25 | 3.930(9) | 3.776(8) | 5.522(8) | 4.716(7) | 3.229(6) | 64.3(1) | 105.4(1) |
| S12 | 5.506(8) | 4.450(8) | 4.727(9) | 3.915(8) | 3.579(7) | 3.481(6) | 51.8(1) |
| S11 | 6.348(8) | 4.110(7) | 3.859(8) | 5.481(8) | 5.919(8) | 3.403(8) | 4.175(6) |

| | | | | | | | |
|------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| As12 | S9 | S26 | S27 | S22 | S23 | S10 | S11 |
| S9 | 2.240(6) | 99.7(2) | 94.4(2) | 91.6(2) | 84.6(2) | 132.5(2) | 160.9(2) |
| S26 | 3.464(9) | 2.291(6) | 84.8(2) | 83.7(2) | 155.0(2) | 123.7(2) | 79.6(2) |
| S27 | 3.593(8) | 3.336(7) | 2.641(5) | 167.8(2) | 119.6(2) | 73.4(2) | 104.5(2) |
| S22 | 3.581(7) | 3.367(7) | 5.343(7) | 2.733(5) | 71.6(2) | 109.9(2) | 69.4(2) |
| S23 | 3.674(7) | 5.296(8) | 4.992(7) | 3.443(8) | 3.130(6) | 64.6(1) | 88.4(1) |
| S10 | 5.348(7) | 5.205(7) | 3.789(7) | 5.184(7) | 3.600(8) | 3.573(5) | 58.0(1) |
| S11 | 6.015(8) | 4.110(7) | 5.187(8) | 3.859(8) | 4.896(9) | 3.609(8) | 3.853(6) |
| M13a | S29 | S6 | S8 | S25 | S30 | S26 | S7 |
| S29 | 2.615(9) | 85.9(2) | 79.4(2) | 83.2(2) | 76.5(2) | 155.2(3) | 121.6(3) |
| S6 | 3.646(9) | 2.735(8) | 145.3(3) | 73.6(2) | 79.4(2) | 73.9(2) | 139.7(3) |
| S8 | 3.427(7) | 5.232(8) | 2.746(8) | 73.5(2) | 126.2(3) | 109.3(2) | 73.5(2) |
| S25 | 3.623(7) | 3.342(7) | 3.343(8) | 2.839(8) | 147.2(3) | 77.6(2) | 133.3(3) |
| S30 | 3.587(8) | 3.767(7) | 5.252(7) | 5.736(7) | 3.139(8) | 112.5(2) | 79.5(2) |
| S26 | 5.653(8) | 3.567(9) | 4.835(9) | 3.776(8) | 5.249(7) | 3.172(9) | 83.2(2) |
| S7 | 5.170(8) | 5.666(8) | 3.643(8) | 5.635(7) | 4.117(7) | 4.294(8) | 3.297(9) |
| M13b | S25 | S29 | S8 | S6 | S26 | S30 | S7 |
| S25 | 2.320(7) | 101.3(3) | 85.7(2) | 83.8(2) | 81.5(2) | 155.2(3) | 134.1(3) |
| S29 | 3.623(7) | 2.367(8) | 87.4(2) | 92.6(2) | 163.9(3) | 71.5(2) | 112.9(2) |
| S8 | 3.343(8) | 3.427(7) | 2.587(8) | 169.3(3) | 108.6(2) | 116.9(2) | 67.0(2) |
| S6 | 3.342(7) | 3.646(9) | 5.232(8) | 2.668(8) | 71.8(2) | 73.1(2) | 122.5(2) |
| S26 | 3.776(8) | 5.653(8) | 4.835(9) | 3.567(7) | 3.341(8) | 99.2(2) | 74.0(2) |
| S30 | 5.736(7) | 3.587(8) | 5.252(7) | 3.767(7) | 5.249(7) | 3.547(7) | 68.4(2) |
| S7 | 5.635(7) | 5.170(8) | 3.643(8) | 5.666(8) | 4.294(8) | 4.117(7) | 3.768(7) |
| As14 | S5 | S31 | S27 | S26 | S30 | S7 | S6 |
| S5 | 2.254(6) | 100.2(2) | 97.6(2) | 100.8(2) | 101.7(2) | 172.7(2) | 136.4(2) |
| S31 | 3.472(8) | 2.273(5) | 99.2(2) | 158.4(2) | 72.5(2) | 82.6(2) | 60.9(2) |
| S27 | 3.439(7) | 3.494(7) | 2.315(6) | 72.6(2) | 160.0(2) | 88.5(2) | 53.3(2) |
| S26 | 4.239(7) | 5.372(7) | 3.336(7) | 3.193(5) | 108.3(1) | 77.3(1) | 99.5(1) |
| S30 | 4.342(9) | 3.384(8) | 5.514(8) | 5.249(7) | 3.281(6) | 72.5(1) | 107.8(1) |
| S7 | 5.902(8) | 4.053(8) | 4.280(9) | 4.294(8) | 4.117(7) | 3.660(6) | 50.8(1) |
| S6 | 6.151(7) | 3.776(7) | 3.474(8) | 5.781(7) | 6.170(8) | 3.472(8) | 4.319(6) |
| As15 | S34 | S2 | S30 | S33 | S29 | S4 | S3 |
| S34 | 2.250(6) | 99.3(2) | 92.9(2) | 86.2(2) | 157.2(2) | 91.7(2) | 67.0(2) |
| S2 | 3.466(8) | 2.299(6) | 98.6(2) | 85.8(2) | 102.6(2) | 155.3(2) | 154.4(2) |
| S30 | 3.307(8) | 3.498(7) | 2.313(6) | 175.5(2) | 77.7(2) | 102.9(2) | 62.3(2) |
| S33 | 3.629(8) | 3.645(8) | 5.310(8) | 3.001(5) | 101.6(1) | 72.8(1) | 113.4(1) |
| S29 | 5.425(7) | 4.398(7) | 3.587(8) | 4.873(7) | 3.281(5) | 70.7(1) | 90.3(1) |
| S4 | 4.146(9) | 5.588(8) | 4.532(9) | 3.823(6) | 3.877(8) | 3.416(6) | 50.1(1) |
| S3 | 4.096(7) | 6.561(7) | 3.913(8) | 6.245(7) | 5.510(7) | 3.436(8) | 4.412(6) |
| As16 | S1 | S30 | S34 | S31 | S35 | S2 | S3 |
| S1 | 2.269(6) | 100.0(2) | 99.9(2) | 93.6(2) | 84.6(2) | 128.1(2) | 176.0(2) |
| S30 | 3.505(7) | 2.307(5) | 84.6(2) | 84.6(2) | 156.3(2) | 127.3(2) | 76.4(2) |
| S34 | 3.733(10) | 3.307(8) | 2.598(7) | 163.9(2) | 71.8(2) | 104.2(2) | 78.1(2) |
| S31 | 3.637(7) | 3.384(8) | 5.250(9) | 2.704(6) | 118.5(2) | 73.5(1) | 87.8(1) |
| S35 | 3.745(7) | 5.394(7) | 3.434(8) | 5.082(7) | 3.201(5) | 61.3(1) | 98.0(1) |
| S2 | 5.409(7) | 5.423(8) | 5.019(8) | 3.918(7) | 3.547(7) | 3.706(5) | 55.9(1) |
| S3 | 6.013(8) | 3.913(8) | 4.096(7) | 4.538(9) | 5.257(6) | 3.491(7) | 3.748(6) |
| As17 | S33 | S33 | S2 | S35 | S34 | S3 | S34 |
| S33 | 2.304(5) | 87.4(2) | 96.4(2) | 81.7(2) | 87.1(2) | 156.9(2) | 134.0(2) |
| S33 | 3.275(5) | 2.436(5) | 94.2(2) | 168.3(2) | 84.1(2) | 76.8(1) | 131.2(2) |
| S2 | 3.612(8) | 3.645(8) | 2.538(7) | 82.7(2) | 176.1(2) | 68.6(2) | 103.2(2) |
| S35 | 3.377(7) | 5.230(6) | 3.547(7) | 2.822(5) | 99.6(2) | 112.2(1) | 60.5(1) |
| S34 | 3.629(8) | 3.609(7) | 5.458(9) | 4.388(9) | 2.923(7) | 107.5(2) | 75.4(2) |
| S3 | 5.686(6) | 3.774(7) | 3.491(7) | 5.257(6) | 5.187(7) | 3.494(5) | 68.3(1) |
| S34 | 5.639(7) | 5.696(8) | 5.019(8) | 3.434(8) | 4.163(9) | 4.096(7) | 3.789(6) |
| As18 | S35 | S32 | S4 | S34 | S3 | S34 | S33 |
| S35 | 2.232(5) | 98.2(2) | 97.8(2) | 75.2(2) | 159.3(2) | 90.3(2) | 50.8(1) |
| S32 | 3.405(6) | 2.273(6) | 98.7(2) | 107.5(2) | 101.5(2) | 171.3(2) | 135.2(2) |
| S4 | 3.426(7) | 3.479(8) | 2.312(5) | 153.5(2) | 72.9(2) | 82.3(2) | 62.1(1) |
| S34 | 3.434(8) | 4.485(8) | 5.411(7) | 3.243(6) | 104.7(2) | 72.4(2) | 95.5(1) |
| S3 | 5.456(7) | 4.373(9) | 3.436(8) | 5.187(7) | 3.310(6) | 70.4(1) | 109.3(1) |
| S34 | 4.388(9) | 6.024(10) | 4.146(9) | 4.163(9) | 4.096(7) | 3.767(8) | 52.9(1) |
| S33 | 3.377(7) | 6.137(7) | 3.823(6) | 5.639(7) | 6.245(7) | 3.629(8) | 4.312(5) |